

REMARKS

The Office Action of September 16, 2003 has been carefully studied. It would be appreciated if the Examiner would acknowledge the amendment to the inventorship filed on September 22, 2003. In the Office Action, claim 14 is indicated to be allowable if placed in independent form. The limitations of claim 14 are now incorporated in claim 1 and it will be explained hereinafter why it is unnecessary to incorporate the limitations of claim 2 as well.

It is further noted that the Abstract has been rewritten so as to conform to the rule.

The following paragraphs correspond to the order of the detailed action:

Election/Restrictions

The finality of the Restriction Requirement is noted as well as Applicants request for rejoinder of the method claims upon allowance of the product claims.

Claim Rejections - 35 U.S.C. 112

Claim 39 recites the range to be "10-40%". Note page 5, second paragraph of the Office Action wherein the limitations of the claim reading on 0% were indicated to be met; however, because of the present amendment, the limitations are no longer met.

Claim Rejections - 35 U.S.C. 103

Claims 1-6, 8-13, 15, 17-20, 22-34 and 37-39 were rejected under 35 U.S.C. 103 over Roeber et al. (U.S. 5,858,492) in view of Fukushi et al. (U.S. 5,658,670).

As indicated above, claim 1 is amended by incorporating the limitations of claim 14, but without the limitations of claim 2. In addition, claim 1 is amended with respect to layers (A2) and (B3) by inserting the term "essentially" after "consists". There is no need to incorporate the highly restrictive language (consists of); so by incorporating the term "essentially", the layer permits the inclusion of additional ingredients which do not deleteriously affect the intended function of the respective layers.

Referring now to the references, they have been studied diligently and it is believed that the following analysis will distinguish Applicants' claimed invention from the combination set forth in the Office Action:

Roeber et al. 5,858,492

This patent is directed to thermoplastic multilayer composites which can be used as construction materials, for example as the walls of tanks or pipes. Accordingly, such walls must necessarily be of sufficient thickness to withstand the pressures of the fluids. On columns 9 and 10 there is provided an indication of the various total wall thicknesses, with pressed flakes having a thickness of up to 5mm, (column 9, line 30) and pipes having a total wall thickness of 1mm. To achieve the total wall thickness of 1mm, table 3 on column 10 indicates that a polyolefin layer of 0.6 or 0.7 mm is necessary. This polyolefin layer corresponds to Applicants' optional layer (B4). Accordingly, new claim 40 which specifically excludes B4 flies in the face of this reference, and is therefore patentable under 35 U.S.C. 103. The reason why Applicants do not require (B4) is that Applicants' multilayer film can be used as a decorative film, and as such, it can be very thin, much thinner than 1mm as indicated in the reference.

The reference also requires a layer of polyvinylidene fluoride molding composition as an outside layer, but it does not appear to contemplate a layer comprising a blend of a fluoropolymer and alkyl (meth) acrylate, as set forth in Applicants' new independent claims 42 and 43.

It is also seen that the layer directly adjacent to the polyvinylidene fluoride comprises a mixture of 40 to 90% by weight of a polyamide and 10 to 60% by weight of a polyglutarimide. In contradistinction to such a composition, it is seen that Applicants' new independent claim 41 requires that the layer consists of polyamide(s) optionally blended with polyolefin(s), filler(s), UV absorbent(s), pigment(s), and colorant(s). Support for this claim is found in Applicants' specification on page 13, lines 18-21. (Support for the blends is found on page 8, lines 17-20 of Applicants' specification.) Thus, claim 41 which does not permit the inclusion of 10 to 50% by weight of a polyglutarimide as required by the reference, is patentably distinguished over the reference inasmuch as it would fly in the face of the intended teachings of the reference to omit the polyglutarimide.

This reference is also admittedly deficient in not requiring a layer of ink.

As to the absence of an ink layer, the Office Action indicates that this would be an obvious layer because a tank or pipe would be normally identified by an ink layer; however, there is no support in the Office Action for such an assertion. As opposed to the teachings of the prior art, Applicants found that the multilayer films of the present invention which have an outer layer made of fluoropolymer or acrylic polymer or blends thereof can be easily decorated (page 4, last complete sentence). Thus, it is respectfully submitted that there is no basis for dismissing Applicants' findings regarding the applicability of ink on the outer surface for decorative purposes. In contradistinction, the industrial components in the reference, e.g. a tank or pipe need not have any decorative surface, much less one made of ink, and if any of the industrial components are to be identified, a metal plate or an embossing stamp or another means other than ink would, on information and belief be selected for such a purpose.

In the Office Action on page 5, 6th line from the bottom, it is stated that reference does not require that the polyamide contain amine end groups, but the Examiner may have inadvertently overlooked column 8, lines 36, 42 and 49. Nevertheless that the reference does not specify layer (B2) having amine end groups should produce via a chemical reaction a covalent bond which is stable over time with the anhydride layer (B3). (Page 13, lines 13-16.) In order to produce polyamides with amine end groups, Applicants' specification on page 12, lines 18-22 points out that the synthesis of the polyamide must be conducted in the presence of diamine or when lactams or α -amino carboxylic acids are used, to use a diamine or a monoamine as a chain limiter. The resultant end groups are all amines as set forth in claim 47. No such requirement or suggestion of any such requirement is found in the Roeber et al. reference 5,858,492. In view of this deficiency, the Office Action attempts to use the teachings of Fukushi et al. U.S. 5,658,670.

Fukushi et al. 5,658,670

This reference teaches that a melt processable aliphatic di-or polyamine of less than 1000 molecular weight when incorporated in a non-fluorinated polymer will increase adhesion to an adjacent fluoropolymer layer. The non-fluorinated polymer includes polyamides among other species. On column 5, lines 53-55 of the reference, a diamine such as 1,12 dodecodiamine may

be blended into a polyamide such as nylon 12 resulting in a modified nylon, then the resultant modified nylon and vinylidene fluoride monomer may be coextruded to form a multilayer article. Thus, these di or polyamines are added subsequent to the formation of polyamides. In contra distinction, Applicants' new claim 44 provides that the amine end groups are provided in the polymer during the formation thereof, thereby, on information and belief, providing an inherently different structure than a post-treated polyamide. In any case, this reference does not suggest the production of a comprehensive multilayer film as provided for in Applicants claims, much less the utilization of an ink layer.

Combination Of Roeber et al. and Fukushi et al.

It is respectfully submitted that there would be no motivation to change the complex composition of Roeber et al. by adding an ink color layer as in claim 1, much less by providing a polyamide having all end groups consisting of amines. Note that the Roeber et al. patent is directed to construction materials, and there would be no motivation to modify a structural material that is already satisfactory for its intended use. Accordingly, in the absence of any realistic motivation to combine the references, and in the absence of a layer of ink, it is respectfully submitted that Applicants' claim 1 is clearly patentable under 35 U.S.C. 103.

Double Patenting

In order to overcome the double patenting rejection, attached is a Terminal Disclaimer. Also attached is an Information Disclosure Statement which includes a copy of Applicants' published French priority application 0000973 published within one year of the filing date of the present application, thereby being a possible reference under 35 U.S.C. 102(a). However, this published French application as evidenced by the inventorship of Applicants' corresponding U.S. application has the same 4 inventors as the 4 inventors of the present application albeit that the present application has an extra inventor. Under such circumstances, it is respectfully submitted that the published French application is not a patent by others. Thus, it is respectfully submitted that 35 U.S.C. 102(a) is not a proper basis for a rejection. Nevertheless, to avoid argument, attached is an English translation of the priority document of the present application so that

Applicants' present application will be entitled to the filing date of Applicants' priority application, specifically January 2, 2001, which antedates the publication date of the published French application.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,



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